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ABSTRACT

An device for depositing a transfer material onto a receiving substrate includes a source of pulsed laser energy, a receiving substrate, and a target substrate. The target substrate comprises a laser transparent support having a back surface and a front surface. The front surface has a coating that comprises a mixture of the transfer material to be deposited and a matrix material. The matrix material is a material that has the property that, when it is exposed to pulsed laser energy, it is more volatile than the transfer material. The source of pulsed laser energy is be positioned in relation to the target substrate so that pulsed laser energy is directed through the back surface of the target substrate and through the laser-transparent support to strike the coating at a defined location with sufficient energy to volatilize the matrix material at the location, causing the coating to desorb from the location and be lifted from the surface of the support. The receiving substrate is positioned in a spaced relation to the target substrate so that the transfer material in the desorbed coating can be deposited at a defined location on the receiving substrate.